

[illegible]

New Claims 6 - 10 replace now cancelled Claims 1 - 5. New Claims 10 and 11 replaces the use claim of now cancelled Claim 5. The Applicants respectfully submit that no new matter is added.

By 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION: (Marked-Up)

The following are changes and additions made to the specification.

Kindly replace the Title Of The Invention with the following:

**[CARBOXYL GROUP-CONTAINING] DIENE RUBBERS CONTAINING
CARBOXYL GROUPS.**

IN THE ABSTRACT

Please replace page 16, a page containing an abstract with the enclosed page that contains a revised Abstract of the Disclosure. A separate page is enclosed herewith.

--DIENE RUBBERS CONTAINING CARBOXYL GROUPS

ABSTRACT OF THE DISCLOSURE

The present invention relates to rubber mixtures containing diene rubber with a concentration of carboxyl groups of 0.1 to 2 wt.% and a glass transition temperature of -120 to -50°C and their mixtures with fillers, optionally further rubbers and rubber auxiliary substances and vulcanisates prepared therefrom. Rubber mixtures according to the invention are suitable for producing highly reinforced, abrasion-resistant moulded items, in particular for producing tire treads which have a particularly high resistance to wet skidding, a high abrasion resistance and a low rolling resistance and also for tire sidewalls with especially good fatigue resistance.--

On page 1, line 3, kindly insert the following:

FIELD OF THE INVENTION

On page 1, line 12, kindly insert the following:

BACKGROUND OF THE INVENTION

On page 2, line 11, kindly insert the following:

SUMMARY OF THE INVENTION

On page 11, line 1, kindly insert the following:

--Table 1--

On page 11, kindly replace Table 1 with the following new Table 1.

	Comparison	Example
	2.A	2.1
in the kneader mixed:		
Buna VSL 5025-1 (37.5 phr mineral oil extended L-SBR, Bayer AG)	61[.]9	61[.]9
natural rubber	10	10
polybutadiene rubber Buna CB 45 (Bayer)	45	0
carboxylic group containing BR according example 1 (20 phr oil content)	0	54
mineral oil Enerthene 1849-1 (BP)	20	11
silica Vulkasil S (Bayer AG)	70	70
silane Si (69 (Degussa Hüls)	6	6
carbon black Corax N121 (Degussa Hüls)	10	10
zinc oxide	3	3
stearic acid	1	1
protective wax Antilux 654 (Rheinchemie)	1[.]5	1[.]5
antioxidant Vulkanox HS (Bayer AG)	1	1
antioxidant Vulkanox 4020 (Bayer AG)	1	1

On the mill admixed

N-cyclohexylmercaptobenzthiazolsulfenamide

Vulkacit CZ (Bayer AG)	1[.]8	1[.]8
diphenylguanidine Vulkacit D (Bayer AG)	2	2
sulfur	1[.]5	1[.]5

On page 12, line 1, kindly insert the following:

--Table--

On page 12, kindly replace Table 2 with the following new Table 2.

	Comparison	Example
	2.A	2.1
tensile strength (Mpa)	16[,].8	18[,].2
elongation at break (%)	450	330
modulus at 100%	2[,].4	2[,].9
modulus at 300% elongation (Mpa)	9[,].5	16[,].3
rebound elasticity at 70°C (%)	54	63
hardness (shore A)	66	66
tan delta at 70°C	0[,].138	0[,].108

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IN THE CLAIMS:

Kindly cancel Claims 1 - 5.

Kindly add the following new Claims:

- 6. A rubber mixture comprising one or more rubbers with 0.1 to 2 wt.% of bonded carboxyl groups or their salts and a glass transition temperature in the range from -120° to -50°C and one or more fillers in the range 10 to 500 parts by wt., with respect to 100 parts by wt. of rubber.
7. A rubber mixture according to Claim 1, wherein said rubber is formed from diolefins.
8. A process for preparing a rubber with 0.1 to 2 wt.% of bonded carboxyl group comprising the step, after polymerization in solution, of reacting rubber with carboxylmercaptans of the general formula (I)



in which

R^1 represents a linear, branched or cyclic $\text{C}_1\text{-C}_{36}$ alkylene group, which may optionally be substituted with up to 3 further carboxyl groups, or which may be interrupted by nitrogen, oxygen or sulfur atoms, or a $\text{C}_6\text{-C}_{12}$ -arylene group

and

X represents hydrogen or a metal or ammonium ion,

optionally in the presence of radical starters.

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